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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,817	05/31/2001	Brian A. Perry	002558-065100US	3378

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EXAMINER

QUAN, ELIZABETH S

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 08/07/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,817

Applicant(s)

PERRY, BRIAN A.

Examiner

Elizabeth Quan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 1 and 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Specification

2. The disclosure is objected to because of the following informalities: On page 3, line 15 "the" should be inserted in between "extends into" and "hollow shaft."

Appropriate correction is required.

Claim Objections

3. Claims 1 and 3 are objected to because of the following informalities: "air-tight" should be "airtight." Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Referring to claim 1, it is unclear what the vacuum manifold is "interchangeably accommodating." It appears the manifold is accommodating both a multi-well plate and one or a plurality of individual chromatography columns terminating in male portions of one or a plurality of male-female type airtight manually engageable connectors.

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7. Referring to claims 1 and 3, “engageable” may be replaced by “operable” for more clarity. “engageable” is not in the Merriam-Webster Collegiate Dictionary, 10th Edition.

8. Referring to claims 1 and 3, “in male portions of male-female-type airtight manually engageable connectors” should be replaced by “in one or a plurality of male portions of one or a plurality of male-female-type airtight manually engageable connectors.”

9. Referring to claims 1 and 3, it appears that through-passage is used to represent both the through-passage of the plate without female portions and through-passage within the female portions. There appears to be insufficient antecedent basis.

10. Referring to the first line of claim 3, “manifold” in between “which” and “is designed for” should be removed.

11. Referring to the second line of claim 3, “all wells” should be replaced by “a plurality of wells.” “a” should be inserted in between “produce” and “vacuum-induced flow.”

12. Referring to the third line of claim 3, “the” should be inserted between “for producing” and “vacuum-induced flow.”

13. Referring to claim 3, it is unclear what “lateral dimensions” refer to. The specification states that the adapter plate...has the same dimensions as the multi-well plate so that it can rest snugly on the shoulder 16 inside the shell 14 and yet is easily removed by hand (see PAGE 3, lines 6-8). Lateral dimensions usually mean side dimensions. Does it mean the thickness of the plate? Furthermore, multi-well plates come in assorted sizes and number of wells. The specification does not define the dimensions of the multi-well plates claimed. The lateral or dimensions of the plate need not be substantially the same as the multi-well plate to secure the multi-well plate snugly on the shoulder inside the shell. For examination purposes, the

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dimensions of the plate have been interpreted as any size sufficient for securing the plate across the open top of the receptacle.

14. Referring to claim 3, it is unclear how the manifold can produce vacuum-induced flow through all wells of the multi-well laboratory plate with female portions embedded within the wells.

15. Referring to claim 2, "open top" is repeated unnecessarily in "supporting said plate across said open top is a shoulder encircling said open top along an inner edge of said open top." Also, "along an inner edge of said open top" is confusing. How can an open top have an inner edge? There are missing structural elements.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,832,842 to Limb.

Referring to claims 1-3, Limb discloses a vacuum manifold (10) for accommodating an adapter and receptacle (12) (see ABSTRACT; FIGS. 1, 2, 5, 6, and 8; COL. 1, lines 44-47). The adapter comprises a plate (16) and plurality of individually removable plugs (84) (see FIGS. 1, 2, 5, 6, and 8; COL. 1, lines 44-47; COL. 3, lines 3-30). The plate (16) has a plurality of through-passages (38) embedded with a female portion (53) of a male-female-type airtight manually operable connector (52,53) (see

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FIGS. 1, 2, 5, 6, and 8; COL. 1, lines 66 and 67; COL. 2, lines 36-51 and 64-68; COL. 3, lines 1 and 2). Each of the plugs (84) is shaped to mate with a through-passage (56) of one of the female portions (53) to form a substantially airtight closure of the through-passage (56) (see FIG. 8; COL. 3, lines 3-30). The receptacle (12) with an open top has a port (32) for drawing a partial vacuum in the receptacle (12) (FIGS. 1, 2, and 5; COL. 1, lines 44-52 and 62-65). The receptacle (12) has a shoulder (18a) encircling along an inner edge (18) of the open top for supporting the plate (16) across the open top (see FIGS. 1, 2, and 5-8; COL. 1, lines 44-61). The vacuum manifold is designed to produce a vacuum-induced flow through all the through-passages (38) of a multi-well plate, and the adapter renders the vacuum manifold (10) usable for producing vacuum-induced flow through one or a plurality of filtering components (70) terminating in male portions of male-female-type airtight manually operable connectors (see ABSTRACT; FIGS. 1-8; COL. 1, lines 44-65; COL. 2, lines 22-30; COL. 3, lines 13, 14, and 20-39). Therefore, Limb includes all the limitations in claims 1-3.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

20. Alternatively, claims 1-3 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 4,832,842 to Limb in view of U.S. Patent No. 5,603,899 to Franciskovich et al.

Referring to claims 1-3, Limb discloses a vacuum manifold (10) for accommodating an adapter and receptacle (12) (see ABSTRACT; FIGS. 1, 2, 5, 6, and 8; COL. 1, lines 44-47). The adapter comprises a plate (16) and plurality of individually removable plugs (84) (see FIGS. 1, 2, 5, 6, and 8; COL. 1, lines 44-47; COL. 3, lines 3-30). The plate (16) has a plurality of through-passages (38) embedded with a female portion (53) of a male-female-type airtight manually operable connector (52,53) (see FIGS. 1, 2, 5, 6, and 8; COL. 1, lines 66 and 67; COL. 2, lines 36-51 and 64-68; COL. 3, lines 1 and 2). Each of the plugs (84) is shaped to mate with a through-passage (56) of one of the female portions (53) to form a substantially airtight closure of the through-passage (56) (see FIG. 8; COL. 3, lines 3-30). The receptacle (12) with an open top has a port (32) for drawing a partial vacuum in the receptacle (12) (FIGS. 1, 2, and 5; COL. 1, lines 44-52 and 62-65). The receptacle (12) has a shoulder (18a) encircling along an inner edge (18) of the open top for supporting the plate (16) across the open top (see FIGS. 1, 2, and 5-8; COL. 1, lines 44-61). The vacuum manifold is designed to produce a vacuum-induced flow through all the through-passages (38) of a multi-well plate, and the adapter renders the vacuum manifold (10) usable for producing vacuum-induced flow through one or a plurality of filtering components (70) terminating in male portions of

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male-female-type airtight manually operable connectors (see ABSTRACT; FIGS. 1-8; COL. 1, lines 44-65; COL. 2, lines 22-30; COL. 3, lines 13, 14, and 20-39). While Limb does not explicitly disclose a chromatographic medium within the male portions, it is well known in the art to provide a chromatographic separation medium as evidenced by Franciskovich et al. Franciskovich et al. disclose chromatographic separation medium above the filter fixed within the through-passage of the body of a separation column for entrapping specific constituents of the sample to be separated (see FIG. 5; COL. 3, lines 54-67; COL. 4, lines 1 and 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vacuum manifold of Limb to include a chromatographic separation medium above the filter as in Franciskovich et al. to entrap specific constituents of the sample to be separated.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art includes one or more limitations of the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (703) 305-1947. The examiner can normally be reached on M-F (8:00-4:30).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703) 308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 879-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elizabeth Quan
Examiner
Art Unit 1743

eq
August 5, 2002


Jill Warden
Supervisory Patent Examiner
Technology Center 1700